Serial No.: 10/747,703

Filed: December 29, 2003

Page : 2 of 8

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Previously presented) A surface-mountable radiation-emitting component, comprising:

a leadframe and a radiation-emitting chip mounted on said leadframe;

a molding material encasing said leadframe and said radiation-emitting chip, the molding material having a shape defining a mounting surface of the component, said mounting surface extending at a first predetermined angle, said first predetermined angle having a value lying within a range from 0° to 20° relative to a main emission direction of the component, said molding material having a shape defining a curved surface in the main emission direction; and

said leadframe having leadframe connections, wherein said leadframe connections protrude out of said molding material and have connection surfaces which enclose a second predetermined angle with said mounting surface, said second predetermined angle having a value lying within a range from 70° to 90°.

- 2. (Original) The component according to claim 1, wherein said leadframe connections, viewed from said mounting surface, are led laterally out of said molding material.
 - 3. (Canceled).
- 4. (Currently amended) The component according to claim 1, wherein said second predetermined angle has a value of substantially 90° or lies within a from 70° to 90°.

5-6. (Canceled)

Serial No.: 10/747,703

Filed: December 29, 2003

Page : 3 of 8

7. (Original) The component according to claim 1, wherein said leadframe connections extend up to a mounting plane defined by said mounting surface.

- 8. (Original) The component according to claim 1, wherein said leadframe connections extend into a vicinity of a mounting plane defined by said mounting surface.
- 9. (Original) The component according to claim 1, wherein said leadframe is substantially flat.
- 10. (Original) The component according to claim 1, wherein said leadframe is formed with voids selected from the group consisting of passages and lateral recesses within a region surrounded by said molding material.
- 11. (Original) The component according to claim 1, wherein said molding material has a top surface parallel to said mounting surface.
- 12. (Original) The component according to claim 1, wherein said molding material, viewed from said radiation-emitting chip, is formed with a curved surface in a main emission direction.
- 13. (Original) The component according to claim 11, wherein said curved surface is selected from the group consisting of a part-cylindrical surface, part-spherical surface and part-aspherical surface.
- 14. (Original) The component according to claim 1, wherein said radiation-emitting chip contains a compound selected from the group consisting of GaN, InGaN, AlGaN, InAlGaN, ZnS, ZnSe, CdZnS and CdZnSe.

Serial No.: 10/747,703

Filed: December 29, 2003

Page : 4 of 8

15. (Original) The component according to claim 1, wherein said radiation-emitting chip is configured to emit radiation selected from the group consisting of visible light, infrared radiation, and ultraviolet electromagnetic radiation.

- 16. (Original) The component according to claim 1, wherein said molding material is a radiation-permeable plastics compression molding material.
- 17. (Original) The component according to claim 1, wherein said molding material is a resin-based material.
- 18. (Original) The component according to claim 1, which comprises conversion material distributed in said molding material.
- 19. (Original) The component according to claim 1, wherein said molding material consists essentially of a prereacted epoxy resin.
- 20. (Original) The component according to claim 19, wherein said epoxy resin is epoxy novolak or epoxy-cresol novolak.
- 21. (Original) The component according to claim 19, wherein said epoxy resin has been prereacted with at least one of a phenol curing agent and an anhydride curing agent.
- 22. (Original) The component according to claim 19, wherein said conversion material contains a material selected from the group consisting of an organic phosphor, an inorganic phosphor, and a mixture thereof.

Serial No.: 10/747,703

Filed: December 29, 2003

Page : 5 of 8

23. (Original) The component according to claim 22, wherein said phosphor contains a phosphor metal center M in a host lattice based on the general formula $A_3B_5X_{12}$.

- 24. (Original) The component according to claim 22, wherein said phosphor contains a phosphor metal center M in a host lattice based on a sulfide, oxysulfide, borate, aluminate, or metal chelate complex.
- 25. (Original) The component according to claim 23, wherein said phosphor is selected from the group consisting of YAG:Ce, TAG:Ce, TbYAG:Ce, GdYAG:Ce, GdTbYAG:Ce, and mixtures thereof.
- 26. (Original) The component according to claim 1, wherein said molding material contains an adhesion promoter.
- 27. (Original) The component according to claim 26, wherein said adhesion promoter is 3–glycidyloxypropyltrimethoxysilane or further derivatives based on trialkoxysilane.
- 28. (Original) The component according to claim 18, wherein said molding material contains a surface modifier for modifying a surface of said conversion material.
- 29. (Original) The component according to claim 28, wherein said surface modifier is diethylene glycol monomethyl ether.
- 30. (Original) The component according to claim 1, wherein said molding material contains a mold release agent or a lubricant.
- 31. (Original) The component according to claim 30, wherein said mold release agent is a wax-based mold release agent or a metal soap with long-chain carboxylic acids.

Serial No.: 10/747,703

Filed: December 29, 2003

Page : 6 of 8

32. (Original) The component according to claim 30, wherein said mold release agent is a stearate.

- 33. (Original) The component according to claim 1, wherein said molding material contains inorganic fillers for increasing a refractive index of said molding material.
- 34. (Original) The component according to claim 33, wherein said inorganic fillers are selected from the group consisting of TiO_2 , ZrO_2 , α -Al₂O₃, and other metal oxides.
- 35. (Original) The component according to claim 1, wherein said molding material contains glass particles.
- 36. (Original) The component according to claim 35, wherein said glass particles have a mean particle size of less than 100 μm .
- 37. (Original) The component according to claim 35, wherein said glass particles have a mean particle size of less than 50 μ m.
- 38. (Original) The component according to claim 35, wherein a proportion of said glass particles in said molding material is between 0% by weight and 90% by weight.
- 39. (Original) The component according to claim 35, wherein a proportion of said glass particles in said molding material is between 10% by weight and 50% by weight.
- 40. (Original) The component according to claim 1, wherein said molding material is a mixture containing the following constituents:

plastics compression molding material ≥ 60%;

Serial No.: 10/747,703

Filed: December 29, 2003

Page : 7 of 8

conversion material $\geq 0\%$ and $\leq 40\%$; adhesion promoter $\geq 0\%$ and $\leq 3\%$; mold release agent $\geq 0\%$ and $\leq 2\%$; surface modifier $\geq 0\%$ and $\leq 5\%$; antioxidant $\geq 0\%$ and $\leq 5\%$; UV light stabilizer $\geq 0\%$ and $\leq 2\%$; and glass particles $\geq 0\%$ and $\leq 90\%$.

- 41. (Original) The component according to claim 40, wherein said conversion material is present in an amount of > 10% and $\le 25\%$ and said antioxidant is based on phosphite or on sterically hindered phenols.
- 42. (Original) The component according to claim 18 configured to produce radiation selected from the group consisting of mixed-color light, white light, infrared, and ultraviolet electromagnetic radiation.
- 43. (Original) A method of producing the component according to claim 1, which comprises the following steps:

preparing a molding material from a resin powder prereacted with curing agent, and optionally further fillers; and

encasing the leadframe and the radiation-emitting chip mounted thereon with the molding material to form the component according to claim 1.

44-86. (Canceled)

87. (Previously presented) The component according to claim 1 wherein the shape of the molding material further defines side surfaces that are substantially perpendicular to the mounting surface, and wherein the leadframe connections protrude out of the side surfaces.